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Spin transport of the frustrated quasi-two-dimensional Heisenberg antiferromagnet LEONARDO DOS SANTOS LIMA, Centro Federal de Educação Tecnológica de Minas Gerais — We use the Self Consistent Harmonic Approximation together with the Kubo formalism of the Linear Response Theory to study the spin transport in the quasi-two-dimensional frustrated Heisenberg antiferromagnet in a square lattice with easy-plane ion single anisotropy at zero temperature. The regular part of the spin conductivity $\sigma^{reg}(\omega)$ is determined for several values of the critical ion single parameter D_c, that separates the low D region from the large D quantum paramagnetic phase. We have obtained an abrupt change in the spin conductivity in the point of phase transition indicating a strong influence of frustration on the spin transport properties

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